REMARKS

Claims 1, 3-6, 17, 23, 25, 26, 28, 31 and 32 are amended herein. Claims 9-16, 27 and 29-30 have been canceled. Claims 1-8, 17-26, 28 and 31-32 are pending. No new matter has been added as a result of these amendments.

CLAIM REJECTIONS - 35 U.S.C. §103(a)

Claims 1, 4-8, 17, 20-22, 25-28, 31 and 32

Claims 1, 4-8, 17, 20-22, 25-28, 31 and 32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Morita et al. (U.S. Patent No. 5,864,753) in view of Ishikawa et al (U.S. Patent No. 5,640,696). Applicants have reviewed the above cited references and respectfully submit that the embodiments of the present invention as recited in Claims 1, 4-8, 17, 20-22, 25-28, 31 and 32 are patentable over the cited references for at least the following rationale.

i. Missing Claim Limitations

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). (MPEP 2143.03).

Similarly, MPEP §2143 provides:

> To establish a prima facie case of obviousness ... the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Independent Claim 1 (and similarly Claim 17), as amended, recites the features:

> a frequency selection unit coupled to said mobile receiving unit, said frequency selection unit
> selecting a plurality of frequencies from the set of frequencies of broadcast signals based on the strength of said plurality of frequencies,
> arranging said plurality of frequencies by subject content categories and geographic areas corresponding to said plurality of frequencies,
> generating a menu comprising each of said plurality of arranged frequencies and descriptions of specific broadcast format information corresponding to each of said plurality of arranged frequencies,
> outputting said menu to a user through said user interface,
> selecting one of said plurality of arranged frequencies based on a user selection, and
> tuning said mobile receiving unit to said selected arranged frequency.

Selecting and Arranging a Plurality of Frequencies

Applicants respectfully submit that the combination of Morita and Ishikawa fails to disclose each and every element of amended Claim 1, arranged as in the claim. Applicants understand Morita to teach a radio station tuning system comprising a controller unit coupled to a mobile radio receiver in a vehicle, wherein the controller unit communicates a user request message to a remotely located base station that receives the request message from the vehicle, retrieves a program table from a database in accordance with the request message and the current position of the vehicle, and provides the vehicle with data concerning the broadcasting time of the requested program and a frequency of a radio station offering the program. Applicants further understand Morita to teach the controller unit using the data received from the base station to tune a radio receiver in the vehicle to the desired frequency.

Applicants do not understand Morita to teach or suggest a frequency selection unit coupled to a mobile receiving unit, ***said frequency selection unit*** selecting a plurality of frequencies from the set of frequencies of broadcast signals based on the strength of said plurality of frequencies and arranging said plurality of frequencies by subject content categories and geographic areas corresponding to said plurality of frequencies, Rather, as previously stated, Applicants understand Morita to teach a controller unit that communicates a user request message to a remotely located base station that receives the request message from the vehicle, retrieves a program table from a database in accordance with the request message and the current position of the vehicle.

Thus, Applicants understand Morita to teach coupling a radio receiver to a controller that routes a request to a ***remotely located base station***, and the base station ***accesses information from a database*** based on the received request. Applicants do not understand Morita to teach or suggest a ***frequency selection unit coupled to a mobile receiving unit*** that ***selects a plurality of frequencies*** from the set of frequencies of broadcast signals based on the strength of said plurality of frequencies.

Indeed, Applicants further understand the Examiner to have mischaracterized the teachings of Morita by stating:

> Morita discloses ... a frequency selection unit coupled to receive a current location from the location unit ... wherein the frequency selection unit ...

selects a frequency from the set of frequencies of broadcast signals in the tuning data retrieved ....

See pages 2 and 3 of the Office Action of 3/7/2007, citing Morita, col. 2, lines 32-37 and col. 4, lines 24-30. As previously stated, Applicants understand Morita to teach coupling a radio receiver to a controller that routes a request to a ***remotely located base station***, and the base station ***accesses information from a database*** based on the received request.

Applicants do not understand Morita to teach or suggest "a frequency selection unit *coupled to said mobile receiving unit*, said frequency selection unit ... *selecting a plurality of frequencies* from the set of frequencies of broadcast signals based on the strength of said plurality of frequencies" (emphasis added). If Examiner is confident that Morita teaches these claimed features, Applicants respectfully request that Examiner point out and explain such teachings with specificity such that Applicants can adequately respond.

Furthermore, Applicants understand Morita to teach a remotely located base station that retrieves a program table from a database in accordance with a user request message received from a vehicle and the current position of the vehicle. Applicants do not understand Morita to teach or suggest ***coupling a mobile receiving unit to a frequency selection unit*** that ***arranges said plurality of frequencies by subject content categories and geographic areas corresponding to said plurality of frequencies***.

Generating a Menu of Broadcast Format Information Corresponding to a Plurality of Arranged Frequencies

The foregoing notwithstanding, Applicants do not understand Morita to teach or suggest a frequency selection unit ***arranging*** said plurality of frequencies by subject content categories and geographic areas corresponding to said plurality of frequencies, ***generating a menu*** comprising each of said plurality of arranged frequencies and descriptions of specific broadcast format information corresponding to each of said plurality of arranged frequencies, ***outputting said menu*** to a user through said user interface, and ***selecting*** one of said plurality of arranged frequencies based on a user selection.

Applicants understand Morita to teach specifying radio stations offering programs of desired kinds using a display and a selector switch in place of a microphone and a speech recognizing unit. Applicants do not understand Morita to teach or suggest "*arranging* said plurality of frequencies by subject content categories and geographic areas corresponding to said plurality of frequencies" and "*generating* a menu comprising each of said plurality of arranged frequencies and descriptions of specific broadcast format information corresponding to each of said plurality of arranged frequencies" (emphasis added).

Further, Applicants do not understand Morita's teaching of "*specifying* radio stations ... using a display" (emphasis added) to be the same as "*generating* a menu comprising each of said plurality of arranged frequencies and

descriptions of specific broadcast format information corresponding to each of said plurality of arranged frequencies" (emphasis added).

The foregoing notwithstanding, Morita's teaching of specifying radio stations offering programs of desired kinds using a display **lacks the inherent synergy** of the claimed invention resulting from arranging frequencies by subject content categories and corresponding geographic areas and generating a menu comprising the arranged frequencies along with descriptions of specific corresponding broadcast format information. Applicants respectfully submit that the synergism of the end result achieved by the invention is greater than the sum of its parts. Applicants do not understand Morita (or Ishikawa) to teach or suggest generating a menu comprising (1) frequency information arranged by corresponding geographic areas and (2) corresponding broadcast information.

Applicants further submit that Morita does not teach or suggest the limitations "outputs said menu to a user through said user interface", "selects one of said plurality of arranged frequencies based on a user selection", and "tunes said receiving unit to said selected arranged frequency" at least because Morita does not teach or suggest arranging said plurality of frequencies by subject content categories and geographic areas corresponding to said plurality of frequencies and generating a menu comprising each of said plurality of arranged frequencies and descriptions of specific broadcast format information corresponding to each of said plurality of arranged frequencies.

Moreover, Applicants have reviewed Ishikawa and understand the combination of Morita and Ishikawa not to teach or suggest these claim features because Ishikawa does not overcome the shortcomings of Morita.

ii. Ishikawa Teaches Away

In addition, Applicants believe Ishikawa to teach away from the claimed invention. Independent Claim 1 (and similarly Claim 17), as amended, recites the features:

> a frequency selection unit coupled to said mobile receiving unit, said frequency selection unit
> receiving a current location from the location unit,
> receiving tuning data comprising a set of frequencies of broadcast signals corresponding to different geographic frequencies through the wireless interface at the current location from a database on the wide area network,
> selecting a plurality of frequencies from the set of frequencies of broadcast signals based on the strength of said plurality of frequencies,
> arranging said plurality of frequencies by subject content categories and geographic areas corresponding to said plurality of frequencies,
> selecting one of said plurality of arranged frequencies based on a user selection, and
> tuning said mobile receiving unit to said selected arranged frequency.

Applicants understand Ishikawa to teach an "automatic format scanning operation is performed *within the current grid* ... because the total number of broadcasting stations stored in the memory unit is generally quite large, so that it is *not practical to search all of them*" and "the receiving apparatus sets the current grid including the current position as a searching object area and

performs the automatic format scanning operation *only* within this region" (emphasis added).

In comparison to the system disclosed in Ishikawa, the frequency selection unit of the claimed invention operates in a functionally distinct manner to produce a different result. Specifically, the frequency selection unit receives tuning data comprising a set of frequencies of broadcast signals ***corresponding to different geographic frequencies*** through the wireless interface at the current location from a database on the wide area network, selects a plurality of frequencies from the set of frequencies of broadcast signals ***corresponding to different geographic frequencies*** based on the strength of said plurality of frequencies, and arranges said plurality of frequencies ***by subject content categories and geographic areas*** corresponding to said plurality of frequencies, and tuning said mobile receiving unit to one of the selected arranged frequencies based on a user selection.

In view of the aforementioned rationale, Applicants respectfully submit that Claims 1 and 17, as amended, are allowable. With respect to Claims 4-8, Applicants respectfully point out that Claims 4-8 depend from allowable amended independent Claim 1, and recite further features of the claimed invention. With respect to Claims 20-22, 25-28, 31 and 32, Applicants respectfully point out that Claims 20-22, 25-28, 31 and 32 depend from allowable amended independent Claim 17, and recite further features of the claimed

invention. Therefore, Applicants respectfully submit that Claims 4-8, 20-22, 25-28, 31 and 32 overcome the rejections under 35 U.S.C. § 103(a), and that these claims are thus in a condition for allowance as being dependent on an allowable base claim. As such, allowance of Claims 4-8, 20-22, 25-28, 31 and 32 is respectfully requested.

Claims 2, 3, 18, 19, 23 and 24

Claims 2, 3, 18, 19, 23 and 24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Morita et al. and Ishikawa et al. in view of Lee et al. (U.S. Patent No. 6,374,177). Applicants have reviewed the above cited references and respectfully submit that the embodiments of the present invention as recited in Claims 2, 3, 18, 19, 23 and 24 are patentable over the cited references for at least the following rationale.

Claims 2 and 3 depend from Claim 1, and thus contain by reference every feature of Claim 1, as amended. Similarly, Claims 18, 19, 23 and 24 depend from Claim 17, and thus contain by reference every feature of Claim 17, as amended. Thus, in so much as Claims 2 and 3 depend from Claim 1, and Claims 18, 19, 23 and 24 depend from Claim 17, Applicants respectfully submit that Claims 2, 3, 18, 19, 23 and 24 are patentable over Morita and Ishikawa in view of Lee under 35 U.S.C. § 103(a) for at least the following rationale.

Independent Claim 1 (and similarly Claim 17), as amended, recites the features:

> a frequency selection unit coupled to said mobile receiving unit, said frequency selection unit
> selecting a plurality of frequencies from the set of frequencies of broadcast signals based on the strength of said plurality of frequencies,
> arranging said plurality of frequencies by subject content categories and geographic areas corresponding to said plurality of frequencies,
> generating a menu comprising each of said plurality of arranged frequencies and descriptions of specific broadcast format information corresponding to each of said plurality of arranged frequencies,
> outputting said menu to a user through said user interface,
> selecting one of said plurality of arranged frequencies based on a user selection, and
> tuning said mobile receiving unit to said selected arranged frequency.

Applicants understand Lee to teach that if a vehicle moves out of the geographic area used in the original configuration and so loses signal from its local stations a user may *manually request* from the multimedia device *a recalibration* of local audio stations. The location of the vehicle from the GPS receiver is sent to the gateway and a new set of local stations are transferred back to the device from the gateway broadcaster database. Applicants further understand Lee to teach that if the playing station experiences a set amount of drift, that event will *automatically trigger a request for a local station recalibration.* Finally, Applicants understand Lee to further teach *requesting* from the broadcaster database at the gateway a *list of any other receivable stations* that are currently broadcasting the same programming as the fading station.

Applicants do not understand Lee to teach or suggest a frequency

selection unit coupled to a mobile receiving unit wherein the frequency selection unit selects a plurality of frequencies from the set of frequencies of broadcast signals based on the strength of said plurality of frequencies, arranges said plurality of frequencies by subject content categories and geographic areas corresponding to said plurality of frequencies, generates a menu comprising each of said plurality of arranged frequencies and descriptions of specific broadcast format information corresponding to each of said plurality of arranged frequencies, outputs said menu to a user through said user interface, selects one of said plurality of arranged frequencies based on a user selection, and tunes said mobile receiving unit to said selected arranged frequency.

Furthermore, Applicants believe that **Lee's methods** of manual and automatic recalibration, as well as Lee's method of subsequently requesting a list of other receivable stations that are currently broadcasting the same programming as the fading station **run contrary to the functionality of the claimed invention**, as recited in the aforementioned claim features, at least because these methods seem to be aimed at acquiring new data when the vehicle moves from one location no another. In contrast, the menu generated in the claimed invention comprises a plurality of frequencies arranged by subject content categories and geographic areas such that a user may select one of the content-based, geographic specific frequencies depending on a current location of the vehicle. Therefore, Applicants respectfully submit that Lee does not teach or suggest the provision of such content-based, geographic information to a user

as is accomplished by the features of the claimed invention.

Thus, Applicants respectfully submit that Claims 1 and 17, as amended, are allowable over Morita and Ishikawa in view of Lee for at least the aforementioned rationale. With respect to Claims 2 and 3, Applicants respectfully point out that Claims 2 and 3 depend from allowable amended independent Claim 1, and recite further features of the claimed invention. With respect to Claims 18-19 and 23-24, Applicants respectfully point out that Claims 18-19 and 23-24 depend from allowable amended independent Claim 17, and recite further features of the claimed invention. Therefore, Applicants respectfully submit that Claims 2, 3, 18, 19, 23 and 24 overcome the rejections under 35 U.S.C. § 103(a), and that each of these claims are thus in a condition for allowance as being dependent on an allowable base claim. As such, allowance of Claims 2, 3, 18, 19, 23 and 24 is respectfully requested.

CONCLUSION

In light of the above listed remarks, reconsideration of the rejected claims is requested. Based on the amendments and arguments presented above, it is respectfully submitted that Claims 1-8, 17-26, 28 and 31-32 overcome the rejections of record. Therefore, allowance of Claims 1-8, 17-26, 28 and 31-32 is respectfully solicited.

Should the Examiner have a question regarding the instant amendment and response, the Applicants invite the Examiner to contact the Applicants' undersigned representative at the below listed telephone number.

Respectfully submitted,
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